

SEQUENCE LISTING

<110> Tanksley, Steven D.

<120> GENE CONTROLLING FRUIT SIZE AND CELL DIVISION IN
PLANTS

<130> 19603/3211

<140>

<141>

<150> 60/215,824

<151> 2000-07-05

<160> 39

<170> PatentIn Ver. 2.1

<210> 1

<211> 492

<212> DNA

<213> Lycopersicon pennellii

<400> 1

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gatgaccctg ctaactgttt agttactagt gtttgccctt gtatcacctt tggacagatt 180
tctgaaatac taaacaaagg aacaacttca tgtgggagta gaggtgcatt atattgtttg 240
ctgggactga caggattgcc tagcctatat tcctgcttct acaggtctaa aatgaggggg 300
caatatgata tggaagaggc accttgtgtt gattgtcttg tacatgtatt ctgtgaacct 360
tgtgtctctt gccaaagaata cagagagctt aagaaccgtg gctttgatat gggaataggg 420
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atgaccaggt ga 492
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<210> 2

<211> 163

<212> PRT

<213> Lycopersicon pennellii

<400> 2

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Met Tyr Pro Thr Val Gly Tyr Asn Leu Gly Leu Met Lys Gln Pro Tyr
1 5 10 15
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Val Pro Pro His Tyr Val Ser Ala Pro Gly Thr Thr Thr Ala Arg Trp
20 25 30
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Ser Thr Gly Leu Cys His Cys Phe Asp Asp Pro Ala Asn Cys Leu Val
 35 40 45

Thr Ser Val Cys Pro Cys Ile Thr Phe Gly Gln Ile Ser Glu Ile Leu
 50 55 60

Asn Lys Gly Thr Thr Ser Cys Gly Ser Arg Gly Ala Leu Tyr Cys Leu
 65 70 75 80

Leu Gly Leu Thr Gly Leu Pro Ser Leu Tyr Ser Cys Phe Tyr Arg Ser
 85 90 95

Lys Met Arg Gly Gln Tyr Asp Leu Glu Glu Ala Pro Cys Val Asp Cys
 100 105 110

Leu Val His Val Phe Cys Glu Pro Cys Ala Leu Cys Gln Glu Tyr Arg
 115 120 125

Glu Leu Lys Asn Arg Gly Phe Asp Met Gly Ile Gly Trp Gln Ala Asn
 130 135 140

Met Asp Arg Gln Ser Arg Gly Val Thr Met Pro Pro Tyr His Ala Gly
 145 150 155 160

Met Thr Arg

<210> 3

<211> 492

<212> DNA

<213> Lycopersicon esculentum

<400> 3

atgtatcaaa cggtaggata taatccaggt ccaatgaaac aaccttatgt tcctcctcac 60
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 gatgacctg ctaactgttt agttactagt gtttgccctt gtatcacctt tggacagatt 180
 tctgaaatac taaacaaagg aacaacttca tgtgggagta gaggtgcatt atattgtttg 240
 ctgggattga caggattgcc tagcctatat tcctgcttct acaggtctaa aatgaggggg 300
 caatatgata tggaagaggc accttgtgtt gattgtcttg tacatgtatt ctgtgaacct 360
 tgtgctcttt gccaaagaata cagagagctt aagaaccgtg gctttgatat gggaataggg 420
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 atgaccaggt ga 492

<210> 4

<211> 163

<212> PRT

<213> Lycopersicon esculentum

<400> 4

Met Tyr Gln Thr Val Gly Tyr Asn Pro Gly Pro Met Lys Gln Pro Tyr
1 5 10 15

Val Pro Pro His Tyr Val Ser Ala Pro Gly Thr Thr Thr Ala Arg Trp
20 25 30

Ser Thr Gly Leu Cys His Cys Phe Asp Asp Pro Ala Asn Cys Leu Val
35 40 45

Thr Ser Val Cys Pro Cys Ile Thr Phe Gly Gln Ile Ser Glu Ile Leu
50 55 60

Asn Lys Gly Thr Thr Ser Cys Gly Ser Arg Gly Ala Leu Tyr Cys Leu
65 70 75 80

Leu Gly Leu Thr Gly Leu Pro Ser Leu Tyr Ser Cys Phe Tyr Arg Ser
85 90 95

Lys Met Arg Gly Gln Tyr Asp Leu Glu Glu Ala Pro Cys Val Asp Cys
100 105 110

Leu Val His Val Phe Cys Glu Pro Cys Ala Leu Cys Gln Glu Tyr Arg
115 120 125

Glu Leu Lys Asn Arg Gly Phe Asp Met Gly Ile Gly Trp Gln Ala Asn
130 135 140

Met Asp Arg Gln Ser Arg Gly Val Thr Met Pro Pro Tyr His Ala Gly
145 150 155 160

Met Thr Arg

<210> 5

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: B26 Primer

<400> 5

gactcgagtc gacatcga

18

<210> 6
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: B25 Primer

<400> 6
gactcgagtc gacatcga 18

<210> 7
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: ORFXF2 Primer

<400> 7
aaacaacctt atgttcctcc tca 23

<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: FW01 Primer

<400> 8
gcccttgat cacctttgga 20

<210> 9
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: GSP1 Primer

<400> 9
gatgattca ttgatcttgc a 21

<210> 10
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Abridged
Anchor Primer

<220>
<221> unsure
<222> (24)..(35)
<223> N at any position in this sequence is Inosine

<400> 10
ggccacgcgt cgactagtagt gggnnngggnn gggnnng 36

<210> 11
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: GSP2 Primer

<400> 11
taacatgaac atgcagggag tc 22

<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Abridged
Universal Anchor Primer

<400> 12
ggccacgcgt cgactagtagt 20

<210> 13
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: GSP3 Primer

<400> 13

gggagtcgga gatagcattg

20

<210> 14

<211> 164

<212> PRT

<213> Lycopersicon esculentum2

<400> 14

Met Asn Pro Ser Ala Gln Pro Ala Tyr Gly Glu Lys Pro Met Thr Gly
1 5 10 15

Val Pro Val Pro Gly Gln Phe Gln Ala Asn His Pro Gly Asn Trp Ser
20 25 30

Thr Gly Leu Cys Asp Cys Phe Ser Asp Ile Ser Ser Cys Cys Leu Thr
35 40 45

Cys Trp Cys Pro Cys Ile Thr Phe Gly Gln Ile Ala Glu Ile Val Asp
50 55 60

Lys Gly Thr Val Ser Cys Gly Ala Ser Gly Ala Leu Tyr Phe Leu Ile
65 70 75 80

Glu Ala Leu Thr Gly Cys Gly Cys Ile Tyr Ser Cys Phe Tyr Arg Ile
85 90 95

Lys Met Arg Lys Gln Tyr Met Leu Pro Glu Ser Pro Cys Gly Asp Cys
100 105 110

Leu Leu His Phe Cys Cys Glu Cys Cys Ala Leu Cys Gln Glu His Arg
115 120 125

Glu Leu Lys His Arg Gly Tyr Asp Met Ser Ile Gly Trp Gln Gly Asn
130 135 140

Met Asp Asn Gln Asn Gly Gly Ile Ala Met Ala Pro Gly Val Gln Gly
145 150 155 160

Gly Met Thr Arg

1945-1946

[illegible]

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[illegible]

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0909559 070301

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100					105					110																			
Gln	Leu	Arg	Gln	Arg	Tyr	Asn	Leu	Val	Glu	Ala	Pro	Tyr	Ser	Asp	Met														
115					120					125																			
Ile	Ser	His	Met	Phe	Cys	Pro	Cys	Gly	Ser	Leu	Cys	Gln	Glu	Phe	Arg														
130					135					140																			
Glu	Leu	Leu	Asn	Arg	Gly	Leu	Asp	Pro	Ala	Leu	Gly	Trp	Asn	Gly	Ile														
145					150					155					160														
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165					170					175																			
<210> 18																													
<211> 145																													
<212> PRT																													
<213> Petunia hybrida																													
<400> 18																													
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20					25					30																			
Thr	Phe	Gly	Arg	Ile	Ala	Glu	Val	Ala	Asp	Gln	Gly	Ser	Thr	Ser	Cys														
35					40					45																			
Val	Val	Ser	Gly	Thr	Val	Tyr	Leu	Leu	Val	Tyr	Leu	Val	Thr	Ser	Gly														
50					55					60																			
Phe	Gly	Cys	Cys	Trp	Tyr	Ser	Cys	Phe	Tyr	Arg	Ser	Lys	Leu	Arg	Asn														
65					70					75					80														
Gln	Tyr	Tyr	Leu	Asp	Glu	Lys	Pro	Cys	Ser	Asp	Leu	Cys	Thr	His	Cys														
85					90					95																			
Cys	Cys	Glu	Tyr	Cys	Ala	Leu	Cys	Gln	Glu	Tyr	Arg	Glu	Leu	Gln	Asn														
100					105					110																			
Gln	Gly	Phe	Asp	Met	Ser	Thr	Gly	Trp	Asn	Glu	Asn	Met	Glu	Lys	Trp														
115					120					125																			

Lys Gly Ser Gly Gly Ala Leu Pro Pro Thr Val Gln Ala Ala Met Asn
 130 135 140

Arg
 145

<210> 19
 <211> 149
 <212> PRT
 <213> Arabidopsis thaliana1

<400> 19
 Met Ala Ser Gln His Leu Gln Ala Asn Pro His Ala Glu Gly Glu Trp
 1 5 10 15

Ser Thr Gly Phe Cys Asp Cys Phe Ser Asp Cys Gln Asn Cys Trp Leu
 20 25 30

Cys Pro Cys Ile Thr Phe Gly Gln Val Ala Asp Ile Val Asp Arg Gly
 35 40 45

Asn Thr Ser Cys Gly Thr Ala Gly Ala Leu Tyr Val Leu Leu Ala Ala
 50 55 60

Ile Thr Gly Cys Gly Cys Leu Tyr Ser Cys Ile Tyr Arg Gly Lys Ile
 65 70 75 80

Arg Ala Gln Tyr Asn Ile Arg Gly Asp Gly Cys Thr Asp Cys Leu Lys
 85 90 95

His Phe Cys Cys Glu Leu Cys Ala Leu Thr Gln Glu Tyr Arg Glu Leu
 100 105 110

Lys His Arg Gly Phe Asp Met Ser Leu Gly Trp Ala Gly Asn Val Glu
 115 120 125

Lys Gln Gln Asn Gln Gly Gly Val Ala Met Gly Ala Pro Ala Phe Gln
 130 135 140

Gly Gly Met Ser Arg
 145

<210> 20
 <211> 152
 <212> PRT
 <213> Arabidopsis thaliana2a

0509059-07001

<400> 20

Met Glu Ala Gln His Leu His Ala Lys Pro His Ala Glu Gly Glu Trp
1 5 10 15

Ser Thr Gly Phe Cys Asp Cys Phe Ser Asp Cys Lys Asn Cys Cys Ile
20 25 30

Thr Phe Trp Cys Pro Cys Ile Thr Phe Gly Gln Val Ala Glu Ile Val
35 40 45

Asp Arg Gly Ser Thr Ser Cys Gly Thr Ala Gly Ala Leu Tyr Ala Leu
50 55 60

Ile Ala Val Val Thr Gly Cys Ala Cys Ile Tyr Ser Cys Phe Tyr Arg
65 70 75 80

Gly Lys Met Arg Ala Gln Tyr Asn Ile Lys Gly Asp Asp Cys Thr Asp
85 90 95

Cys Leu Lys His Phe Cys Cys Phe Leu Cys Ser Leu Thr Gln Gln Tyr
100 105 110

Arg Glu Leu Lys His Arg Gly Tyr Asp Met Ser Leu Gly Trp Ala Gly
115 120 125

Asn Val Glu Arg Gln Gln Asn Gln Gly Gly Val Ala Met Gly Ala Pro
130 135 140

Val Phe Gln Gly Gly Met Thr Arg
145 150

<210> 21

<211> 151

<212> PRT

<213> Arabidopsis thaliana2b

<400> 21

Met Glu Ala Gln Leu His Ala Lys Pro His Ala Gln Gly Glu Trp Ser
1 5 10 15

Thr Gly Phe Cys Asp Cys Phe Ser Asp Cys Arg Asn Cys Cys Ile Thr
20 25 30

Leu Cys Cys Pro Cys Ile Thr Phe Gly Gln Val Ala Glu Ile Val Asp
35 40 45

Pro Ser Ile Ser Gly Trp Ser Gly Asn Met Gln Arg Thr Met Ala Pro
 115 120 125

Pro Met Ser Gln Gln Met Met Gly
 130 135

<210> 23

<211> 190

<212> PRT

<213> Arabidopsis thaliana3b

<400> 23

Met Gly Arg Pro Gly Ser Gln Pro Asn Glu Ala Gln Pro Pro Pro Val
 1 5 10 15

Gln Val Gln Pro Thr Val Asn Arg Asp Asn Gln Val His Ser Gln Asn
 20 25 30

Gly Ala Ile Gly Gln Ala Asn Ile Gln Thr Gly Arg Pro Val Asn Asn
 35 40 45

Gln Thr Gln Asn Leu Trp Ser Ser Asp Leu Phe Asp Cys Met Asn Asp
 50 55 60

Ser Glu Asn Gly Leu Cys Ile Gly Ser Ala Val Ile Thr Cys Leu Ala
 65 70 75 80

Pro Cys Val Thr Leu Gly Gln Ile Ala Glu Ile Val Asp Glu Gly Ala
 85 90 95

Thr Thr Cys Ala Thr Gly Gly Leu Leu Tyr Gly Met Ile Phe Phe Ile
 100 105 110

Gly Val Pro Phe Val Tyr Ser Cys Met Phe Arg Ala Lys Met Arg Asn
 115 120 125

Lys Tyr Gly Leu Pro Asp Ala Pro Ala Pro Asp Trp Ile Thr His Leu
 130 135 140

Phe Cys Glu His Cys Ala Leu Cys Gln Glu Tyr Arg Glu Leu Lys His
 145 150 155 160

Arg Gly Phe Asp Pro Asn Ile Gly Trp Ala Gly Asn Val Gln Ala Gln
 165 170 175

Gln Pro Val Met Ser Pro Pro Thr Gly Gln Arg Met Met Gly

059859.0304

180

185

190

<210> 24

<211> 190

<212> PRT

<213> Arabidopsis thaliana3c

<400> 24

Met Gly Arg Pro Val Gly Gln Thr Asn Gln Ala Gln Pro Ser Val Gln
 1 5 10 15

His Thr Ala Ser Pro Ser Asn Lys Val Ser His Asn Gly Gly Ile Gly
 20 25 30

Lys Pro Ala Asn Ile Pro Thr Gly Ile Pro Val Asn Tyr Gln Gln Thr
 35 40 45

Gln Asn Gln Trp Ser Ser Gln Leu Phe Asp Cys Met Asn Asp Ser Glu
 50 55 60

Asn Gly Leu Cys Ile Gly Leu Ala Val Ile Thr Leu Ile Ala Pro Cys
 65 70 75 80

Val Thr Phe Gly Gln Ile Ala Glu Ile Val Asp Glu Gly Ala Thr Thr
 85 90 95

Cys Ala Thr Ala Gly Leu Leu Tyr Gly Ala Leu Phe Phe Thr Gly Ala
 100 105 110

Ser Phe Val Tyr Ser Tyr Met Phe Arg Ala Arg Ile Arg Lys Lys Phe
 115 120 125

Gly Leu Pro Asp Ala Pro Ala Pro Asp Trp Ile Thr His Leu Val Cys
 130 135 140

Met Pro Phe Ala Leu Cys Gln Glu Tyr Arg Glu Leu Lys His His Gly
 145 150 155 160

Phe Asp Pro Ile Leu Gly Trp Ala Gly Asn Val Gln Gln Ala Gln Gln
 165 170 175

Gln Glu Met Met Thr Pro Pro Thr Gly Gln Arg Met Met Gly
 180 185 190

<210> 25

<211> 163

<212> PRT

<213> Arabidopsis thaliana4a

<400> 25

Met Tyr Gly Asn Gly Pro Val Phe Lys Ala Glu Gly Thr Ser Phe Arg
1 5 10 15

Asp Gln Pro Tyr Ala Glu Gln Leu Pro Gln Gly Leu Trp Thr Thr Gly
20 25 30

Leu Cys Asp Cys His Glu Asp Ala His Ile Cys Thr Tyr Gln Asn Thr
35 40 45

Ala Ile Met Pro Cys Val Ser Phe Ala Gln Asn Val Glu Ile Val Asn.
50 55 60

Arg Gly Thr Ile Thr Cys Met Asn Ala Gly Leu Ile His Leu Ala Leu
65 70 75 80

Gly Phe Ile Gly Cys Ser Trp Leu Tyr Ala Phe Pro Asn Arg Ser Arg
85 90 95

Leu Arg Glu His Phe Ala Leu Pro Glu Glu Pro Cys Arg Asp Phe Leu
100 105 110

Val His Leu Phe Cys Thr Pro Cys Ala Ile Cys Gln Glu Ser Arg Glu
115 120 125

Leu Lys Asn Arg Gly Ala Asp Pro Ser Ile Gly Trp Leu Ser Asn Val
130 135 140

Glu Lys Trp Ser Arg Glu Lys Val Thr Pro Pro Ile Val Val Pro Gly
145 150 155 160

Met Ile Arg

<210> 26

<211> 160

<212> PRT

<213> Arabidopsis thaliana4b

<400> 26

Met Asn Leu Ser Ser Asn Asp Gln Pro Ser Gln Gly Arg Ile Lys Ala
1 5 10 15

Lys Asp Trp Ser Thr Asp Leu Cys Glu Cys Trp Met Asp Ile Asn Ser

20 25 30
 Cys Cys Leu Thr Cys Trp Cys Pro Cys Val Ala Phe Gly Arg Ile Ala
 35 40 45
 Glu Val Val Asp Arg Gly Ser Thr Ser Cys Gly Val Ser Gly Ala Met
 50 55 60
 Tyr Met Ile Ile Phe Met Leu Thr Gly Tyr Gly Gly Ser Ser Leu Tyr
 65 70 75 80
 Ser Cys Phe Tyr Arg Thr Lys Leu Arg Ala Gln Tyr Asn Leu Lys Glu
 85 90 95
 Arg Pro Cys Cys Asp Cys Cys Val His Phe Cys Cys Glu Pro Cys Ala
 100 105 110
 Leu Cys Gln Glu Tyr Arg Gln Leu Gln His Asn Arg Asp Leu Asp Leu
 115 120 125
 Val Ile Gly Trp His Gly Asn Met Glu Arg His Ala Arg Leu Ala Ala
 130 135 140
 Ser Thr Pro Ser Ala Pro Pro Leu Gln Ala Pro Met Ser Arg Leu Val
 145 150 155 160

<210> 27

<211> 108

<212> PRT

<213> Arabidopsis thaliana5

<220>

<221> UNSURE

<222> (1)..(108)

<223> Xaa at any position in this sequence is unknown

<400> 27

Leu Leu Ser Ile Asn Ser Leu Leu Xaa Phe Xaa Ser Leu Ser Leu Phe
 1 5 10 15

Met Glu Ala Gln His Xaa His Ala Lys Pro His Ala Glu Gly Glu Trp
 20 25 30

Ser Thr Gly Phe Xaa Asp Cys Phe Xaa Asp Cys Lys Asn Cys Cys Ile

SECRET

<211> 167

<213> Glycine max1

<221> UNSURE

<223> Xaa at position 158 in this sequence is unknown

Met Tyr Gln Gln Gln Gly Ser Asp Pro Thr Lys Gln Ser Pro Ala Thr
1 5 10 15

Ala Ser Tyr Ala Pro Val Pro Pro Pro Gln Pro Lys Pro Leu Val Asn
35 40 45

Trp Ser Thr Gly Leu Cys Asp Cys Phe Ser Glu Cys Gly Asn Cys Cys
50 55 60

Met	Thr	Cys	Trp	Cys	Pro	Cys	Val	Thr	Phe	Gly	Arg	Val	Ala	Glu	Ile
65					70					75					80

Val	Asp	Lys	Gly	Ser	Thr	Ser	Cys	Gly	Ala	Ser	Gly	Ala	Leu	Tyr	Thr
				85					90					95	

Leu Ile Cys Cys Val Ile Gly Cys Gly Cys Leu Tyr Ser Cys Phe Tyr
100 105 110

17

115 120 125

Asp Cys Leu Ile His Cys Phe Cys Glu Pro Cys Ala Leu Cys Gln Glu
 130 135 140

Tyr Arg Glu Leu Gln His Arg Gly Phe Asp Met Ile Ile Xaa Trp His
 145 150 155 160

Gly Asn Val Glu Gln Arg Ser
 165

<210> 29
 <211> 72
 <212> PRT
 <213> Glycine max2

<400> 29
 Arg Ala Glu Phe Gly Thr Arg Phe Ala Ala Ala Cys Gly Ala Ser Gly
 1 5 10 15

Ala Leu Tyr Thr Leu Ile Cys Cys Val Ile Gly Cys Gly Cys Leu Tyr
 20 25 30

Ser Cys Phe Tyr Arg Pro Lys Met Arg Arg Gln Tyr Gly Leu Lys Gly
 35 40 45

Asn Gly Cys Ser Asp Cys Leu Ile His Cys Phe Cys Glu Pro Cys Ala
 50 55 60

Leu Cys Gln Glu Tyr Arg Glu Leu
 65 70

<210> 30
 <211> 138
 <212> PRT
 <213> O.sativ1

<220>
 <221> UNSURE
 <222> (138)
 <223> Xaa at position 138 in this sequence is unknown

<400> 30
 Met Gln Asp Gln Ala Ala Pro Val Pro Trp Ser Thr Asp Leu Phe Asp
 1 5 10 15

Cys Phe Asp Asp Ser Ser Asn Cys Phe Met Thr Trp Leu Cys Pro Cys
20 25 30

Ile Thr Phe Gly Gln Ile Ala Glu Ile Val Asp Arg Gly Ser Ser Ser
35 40 45

Cys Gly Thr Ser Gly Ser Leu Tyr Ala Leu Val Phe Leu Val Thr Gly
50 55 60

Cys Ser Cys Ile Tyr Ser Cys Ile Tyr Arg Ser Lys Leu Arg Ser Gln
65 70 75 80

Tyr Gly Leu Gln Glu Thr Pro Cys Pro Asp Cys Leu Val His Leu Trp
85 90 95

Cys Glu Pro Cys Ala Leu Cys Gln Glu Tyr Arg Glu Leu Lys Lys Arg
100 105 110

Gly Phe Asp Met Ser Leu Gly Asn Arg Lys Phe Asn Arg Trp His Ala
115 120 125

Asn Met Gly Glu Ala Arg Ala Lys Pro Xaa
130 135

<210> 31

<211> 123

<212> PRT

<213> O.sativa2

<400> 31

Cys Leu Cys Pro Cys Ile Thr Phe Gly Gln Ile Ala Glu Ile Ile Asp
1 5 10 15

Arg Gly Ser Ser Ser Cys Gly Thr Ser Gly Ala Leu Tyr Ala Leu Val
20 25 30

Met Leu Leu Thr Gly Cys Asn Cys Val Tyr Ser Cys Phe Tyr Arg Ala
35 40 45

Lys Met Arg Ser Gln Tyr Gly Leu Gln Glu Lys Pro Cys Ala Asp Cys
50 55 60

Pro Val His Phe Phe Cys Glu Pro Cys Ala Leu Ser Gln Glu Tyr Arg
65 70 75 80

Glu Leu Lys Lys Arg Gly Phe Asp Met Asn Leu Gly Trp His Ala Asn
85 90 95

Ala Thr Tyr Gln Leu Pro Thr Met Asn Thr Pro Arg Thr Gly Gly Gly
35 40 45

Leu Thr Arg Trp Ser Thr Gly Leu Phe His Cys Met Asp Asp Pro Gly
50 55 60

Asn Cys Leu Ile Thr Cys Val Cys Pro Cys Ile Thr Phe Gly Gln Val
65 70 75 80

Ala Asp Ile Val Asp Lys Gly Thr Cys Pro Cys Leu Ala Ser Gly Thr
85 90 95

Ala Tyr Ala Leu Leu Cys Ala Ser Gly Met Gly Cys Leu Tyr Ser Cys
100 105 110

Phe Tyr Arg Ser Lys Met Arg Ala Gln Phe Asp Leu Asp Glu Gly Asp
115 120 125

Cys Pro Asp Phe Leu Val His
130 135

<210> 34

<211> 81

<212> PRT

<213> O.sativa5

<220>

<221> UNSURE

<222> (10)..(61)

<223> Xaa at any position in this sequence is unknown

<400> 34

Leu Tyr Ser Cys Phe Tyr Arg Ser Lys Xaa Arg Ala Gln Phe Asp Leu
1 5 10 15

Asp Glu Gly Asp Cys Pro Asp Phe Leu Val His Phe Cys Cys Glu Tyr
20 25 30

Cys Ala Leu Cys Gln Glu Tyr Arg Glu Leu Lys Asn Arg Gly Phe Asp
35 40 45

Leu Gly Ile Gly Trp Ala Xaa Asn Val Asp Arg Gln Xaa Arg Gly Val
50 55 60

Thr Gly Ala Ser Val Met Gly Ala Pro Gly Val Pro Val Gly Met Met
65 70 75 80

Arg

<210> 35

<211> 130

<212> PRT

<213> O.sativa6

<220>

<221> UNSURE

<222> (117)

<223> Xaa at position 117 in this sequence is unknown

<400> 35

Leu Arg Tyr Gln Gln Leu His His Ile Leu Asn Leu Gln Gln Gln Val
1 5 10 15

Ile Val His Arg Arg Arg Lys Leu Lys Glu Ser Arg Arg Ser Met Ala
20 25 30

Lys Pro Ser Ala Ala Ala Trp Ser Thr Gly Leu Leu Asp Cys Phe Asp
35 40 45

Asp Cys Gly Leu Cys Cys Met Thr Cys Trp Cys Pro Cys Ile Thr Phe
50 55 60

Gly Arg Val Ala Glu Met Val Asp Arg Gly Ser Thr Ser Cys Gly Thr
65 70 75 80

Ser Gly Ala Leu Tyr Ala Cys Trp Arg Arg Ser Pro Ala Ala Ser Ser
85 90 95

Ser Thr Pro Ala Ser Thr Gly Ala Arg Cys Ala Pro Ser Thr Ala Ser
100 105 110

Ala Thr Thr Pro Xaa Ala Pro Thr Ala Ala Ser Thr Ser Gly Ala Thr
115 120 125

Ser Ser
130

<210> 36

<211> 144

<212> PRT

<213> O.sativa7

<220>

<221> UNSURE

<222> (140)

<223> Xaa at position 140 in this sequence is unknown

<400> 36

Arg Glu Ser Leu Thr Leu Ala Gly Arg Arg Val Arg Asp Arg Arg Arg
1 5 10 15

Arg Pro Val Arg Arg Ala Ser Ile Tyr Ile Leu Arg Ser Arg Arg Arg
20 25 30

Thr Val Glu Ala Pro Pro Pro Pro Pro Phe Ala Met Gln Asp Gln
35 40 45

Ala Ala Pro Val Pro Trp Ser Thr Asp Leu Phe Asp Cys Phe Asp Asp
50 55 60

Ser Ser Asn Cys Phe Met Thr Trp Leu Cys Pro Cys Ile Thr Phe Gly
65 70 75 80

Gln Ile Ala Glu Ile Val Asp Arg Gly Ser Ser Ser Cys Gly Thr Ser
85 90 95

Gly Ser Leu Tyr Ala Leu Val Phe Leu Val Thr Gly Cys Thr Val Ser
100 105 110

Thr Pro Ala Ser Thr Ala Pro Thr Ala Val Pro Val Arg Pro Cys Arg
115 120 125

Arg Arg Pro Cys Pro Asp Cys Phe Val His Phe Xaa Cys Glu Pro Ser
130 135 140

<210> 37

<211> 126

<212> PRT

<213> Zea mays1

<220>

<221> UNSURE

<222> (34)

<223> Xaa at position 34 in this sequence is unknown

<400> 37

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